Stakeholder Theory vs Agency Theory in Portuguese NPO

- an Endowment Approach

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Biographic Note

Tiago Teixeira was born in Porto, Portugal in 23 May 1994.

He finished high school in 2012, when he joined the School of Economics and Management of the University of Porto, for the 3-year course of Management Bachelor concluding in 2015.

By the same year, he entered the course of Master in Finance in the same institution. In, the second year, he did a curricular internship on Associação A3S that also served as an inspiration for the making of this dissertation.

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Abstract

The Agency Theory has been an important topic regarding corporate governance of organizations, as it addresses potential conflicts between shareholders and managers, constituting the target of many researches in for-profit organizations. However, regarding Not-for-Profit Organizations (NPO) the information is proportionally smaller and rather scarce.

The use of the Stakeholder Theory in this dissertation, even if not necessarily required to explain principal-agent relations, it is desirable given that NPO lack a principal in the sense of the for-profit context. Consequently, the theory proposes the stakeholders as the principal in that relations given that they have an important claim on NPO daily operations.

In the light of a competing debate between Agency Theory and Stakeholder Theory, the objective of this study is to analyze whose factors influence the retention of excess endowment in Portuguese NPO, how those generate or not agency problems and the importance of stakeholders for that matter.

The realization of a benchmark regression allowed to find whose financial indicators affected mainly the behavior of endowment holdings (defined as cash, bank deposits and liquid financial investments) in Portuguese NPO. For excess endowment, the results did not favor significantly agency problems principally in the case of board remuneration and in grants receiving. Excess endowment is favored for investment on fixed assets.

Results of the regression did not support any empirical evidence of agency problems. Still, further studies can give a more complete overview on this topic. The intention of this study it is then to fill some gaps on the literature of Agency Theory over NPO.

Key-words: Agency Theory; Stakeholder Theory; Not-for-Profit; Corporate Governance; Endowment

JEL-Codes: G31; G35; G38; J33; L31

Resumo

A Teoria da Agência tem sido importante no que diz respeito a gestão das organizações, sobretudo porque aborda potenciais conflitos entre acionistas e gestores, sendo alvo de muitos estudos em organizações com fins lucrativos. No entanto, o tema em organizações sem fins lucrativos é proporcionalmente pequeno e a sua informação bastante dispersa.

O uso da Teoria dos Stakeholders nesta dissertação, ainda que não necessária para explicar relações entre principal e agente, é desejável dado que as organizações sem fins lucrativos não têm um principal no sentido das organizações com fins lucrativos. Consequentemente, a teoria propõe os stakeholders como os principais nessas relações dado que eles têm de facto importância nas operações das organizações sem fins lucrativos.

Usando como base um debate entre a Teoria da Agência e a Teoria dos Stakeholders, o objetivo deste estudo é de analisar que fatores influenciam a retenção de grandes "endowments" em organizações do terceiro sector, que problemas de agência isso pode ou não acarretar e de que forma os stakeholders importam nessas relações.

A realização de uma regressão "benchmark" permitiu encontrar quais indicadores financeiros afetam principalmente o comportamento de retenção de "endowment" em organizações sem fins lucrativos portugueses. Para "endowment excessivo", os resultados não favorecem significativamente problemas de agência no caso de remuneração dos quadros sociais e do recebimento de donativos. Já investimento em ativos fixos é explicado por retenção de endowment excessivo.

Os resultados neste estudo não mostram qualquer tipo de evidência empírica de problemas de agência. No entanto, mais estudos permitirão dar uma análise mais completa deste tópico. A intenção deste estudo foi a de preencher algumas lacunas existentes em relação a esta temática.

Palavras-chave: Teoria da Agência; Teoria dos Stakeholders; Sem-fins Lucrativos; Gestão Organizacional; Endowment

Códigos-JEL: G31; G35; G38; J33; L31

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Abbreviations

CEO	Chief Executive Officer
Comp	Compensation
IRS	Internal Revenue Service
NIncome	Net Income
NPO	Non-profit Organization
PPE	Investment on Fixed Assets
RevConc	Revenue Concentration
ROE	Return on Equity
Std Rev	Standard Deviation of Revenue
VC-E	Venture Capitalist-Entrepreneur

Introduction

Not-for-Profit Organizations (NPO) are typically different from for-profit organizations. One obvious difference it is their distribution of profit. NPO face the constraint of not being able to distribute their profit to their owners because there are no owners (in the case of for-profit the shareholders) and their main end is social profit.[1] In fact, it brings a problem of applicability of Agency Theory onto NPO. For the study of the manager behavior, the principal is not properly defined, if the classical theory is followed. In this study, it will be used propositions of both Agency Theory and the Stakeholder Theory.

Alike any regular organization, NPO maintain important relations with their stakeholders because they are the ones that make it possible the existence of the activities of the organization. (Simsa and Patak, 2008 in Eller, 2004) The stakeholders can be various, through simple donors to the everyday workers, they are the ones who contribute, so they have interest part that the funds of the NPO are well spent.

In the sense of monitoring these relations, individual or collective stakeholders may well face some problems when they contribute with grants or donations for the NPO to carry out their social objectives (Fisman and Hubbard, 2005).

For these NPO-Stakeholders relations it can be applicable a principal-agent relation, even if the classical theory propositions do not fit or describe them, due to a proper lacking definition of the principal or agent as suggested in Agency Theory, a hybrid between Agency plus Stakeholder Theory can explain the relation between NPO and their respective Stakeholders (Puyvelde, V. et al, 2012).

The endowment is an important instrument when NPO struggles with a decline on cash inflows and has the need to secure some funds to pursue and continue their operations (Fisman and Hubbard, 2003). The hold of endowment may well serve purposes other than financing regular activities, like remunerating the executive board as well allow investment in fixed assets. The few studies on this matter use endowment or cash holdings

[1] "The Non-Distribution Constraint states that a nonprofit organization is prohibited from distributing its net earnings among individuals who oversee the organization. This includes board members, staff and directors" http://www.learningtogive.org/resources/non-distribution-constraint.

(depending on the level of asset liquidity) as a source of potential conflict between managers and stakeholders. For this study, endowment will be the main variable.

This research is then oriented to look for evidence of agency problems over Portuguese NPO. The objective is to search and compute financial indicators inside NPO that are normally associated to Agency Theory in the literature, any signs of self-interest conduct by the agent in managing the organization's endowment and how stakeholders' relations are privileged. The question intended to answer is:

Do managers hold excess endowments as a consequence of agency costs in Portuguese NPO?

Answering it, will provide evidence of any similarities between for-profit organizations and NPO regarding principally supervision and control roles inside the boards of the organizations. Also, it will show what matters to donators by the time they make their donations to Portuguese NPO. For this specific topic, is what is privileged for any relation between NPO and any grant-maker (donors and other similar entities).

The application of the Stakeholder Theory and Agency Theory onto NPO for the development of this dissertation was motivated by the fact that I did a curricular internship in a Portuguese NPO called A3S (Associação A3S)[2]. The organization has the objective of "(…) research and development (R&D) with the mission of promoting social entrepreneurship for collective knowledge, for the sustainability of the third sector and to contribute to the consolidation of sustainable development alternatives, more just, equitable and participatory (…)".

My stay over A3S allowed me to improve not only my soft skills but also test my technical knowledge from what I have learned in my past years both in my master's degree but also in my bachelor's. The reality of a NPO is very different from the others I studied in for-profit context. Although there are many similar parameters when running both type of organizations, they are important changes significantly in how they are managed. The non-distribution constraint (Fisman and Hubbard, 2003) can be a starting point to better comprehend what really matters from a NPO side. Like mentioned before, the lack of a

[2] http://a-3s.org/

shareholder, guides the attention for these organizations for all relevant stakeholders not only for the specific main end of each one of them but also for those who support the organization every day. With this, my knowledge over 3rd sector organizations grew, not only of their structure but also the way they act.

During my internship on the organization and in the process of doing my tasks, I was recurrently in contact with various financial documents not only of A3S but other documents in a matter of being linked to the tasks done during the internship and also by curiosity of my professional area. By accounting standards, NPO regulations are equal to those of the for-profit organizations. More, the reports are in its majority like those shown by them. Nevertheless, although the financial indicators are the same, in its essence they are different. First, NPO have the status of being tax-exempt. Second, a NPO do not seek to maximize economic profit but social profit. It does not mean that they do not seek that profit but when doing a proper analysis of the NPO, qualitative measures are heavily weighted.

This dissertation has the then intention of, by answering the research question, finding more similarities and/or differences between these two types of organizations. Being structurally different, the research may also allow to promote better practices of corporate governance and ways of increasing organization value of those commonly known.

The sample is of Portuguese NPO with consistent financial reports for the period of 2011-2015 (balance and income sheet required). Study follows the methodology used in the studies like Core et al. (2006) or Ramirez. A (2010) that consisted in running a benchmark regression, where it was expected two results:

-main variables that contribute to the value of endowment or cash;

-the NPO with higher endowment to the mean of the sample and consequently the residuals for a second regression.

In the second point, we were able to identify if the agency variables are or are not relevant to the definition of the excess endowment as well the main drivers relevant for donors at the time of making their grants.

Past this section, this dissertation is divided as follows: the section 2 referring to the literature review with subtopics related to the main concepts, main theories, similar studies and a critical opinion over them; section 3 is for empirical analysis, like data and steps of the research, methodology and interpretation of results; finally, a conclusion over the results, limitations and further researches suggestions.

Chapter 1. Literature Review

The literature review on this study covers the main theories underlying the subject as well a summary over other ones regarding corporate governance. Also, it is presented a model that explains reasons for endowment retention. In the end of the chapter, a theoretical framework of the research question and a critical review on main literature is shown.

1.1 Main Theories

1.1.1 Agency Theory

In the Agency Theory literature, the notions of principal and agent are the first ones to be defined. The first ones are the represented, the principals, and the second ones are those who represent, the agents. Generally, these are well stated in the for-profit area. The principals are normally the shareholders of a corporation and the agents are the managers of it (Jensen and Meckling, 1976). The theory assumes that those two groups have different utility functions and different attitudes towards risk, considering the principal as risk neutral and the agent as risk averse, so their interests towards their company are consequently misaligned (Fama, 1981). There are two problems that are normally associated with managers: adverse selection, when managers hide from the shareholders important information regarding their personal traits and ambition; moral hazard, here the agents act in self-interest and with opportunistic behavior. The theory suggests mechanisms of monitoring or incentive that can be taken by the two parties, usually known as bonding costs, to mitigate or even avoid the potential conflict between those two groups (Eisenhardt, 1989). For-profit are structurally formed to have a board of directors which function is to monitor and ratify the decisions made by the managers to ensure the interests of common shareholders. One more relevant definition will be agency costs that represent the sum of the principal monitoring expenditures, the agent's bonding expenditures and any remaining residual loss firm (Fama and Jensen, 1983; Jensen, 1983).

Before beginning the description of the Stakeholder Theory, some points regarding the differences between for-profit organizations and NPO should be made clear. The shareholder is the top of the hierarchy model in a for profit corporation, consequently as the final decision maker and controller (Lan, 2010 in Eller, 2014). This theory is then inefficient when transposable to the NPO context, since there is no identifiable owner. More, the non-distribution constraint premise denies the identification of residual claimers to NPO profits (Hansmann, 2010). The final decisions are attributable then to other stakeholders depending of the NPO analyzed (Miller, 2002).

1.1.2. Stakeholder Theory

For a proper framework of this study, given that NPO lacks shareholders, it was included the assumptions of the Stakeholder Theory. The Stakeholder Theory differs from the Agency Theory in two perspectives: it does not restrict the group of principals to only shareholders and says that the market is inefficient contrary to the position of market efficiency of the principal-agent theory (Hill and Jones, 1992). With this, the notion of principal must be bigger than previously defined on the theory of agency. For the development of this work, principal will be all relevant stakeholders, internal or external, as defined next: the term stakeholders refer to groups of constituents who have a legitimacy claim on the firm (Freeman, 1984; Pearce, 1982 in Hill and Jones, 1992).

The use of this theory follows the arguments presented in Van Puyvelde et al.,2012. In this paper, they attribute the various relations between NPO and stakeholder (either internal or external) as similar to principal-agent relationships. Regarding this dissertation, this argument is applicable to validate the use of the Excess Endowment as the dependent variable in the regressions as well indirectly the relations between donors and managers are assessed in principal-agent relations.

Mitchell et al. (1997) defined a typology for stakeholders depending on its power, legitimacy and urgency. They state that managers should be aware of all stakeholders but those who have at least two of these three attributes should be a priority for managers.

Jensen (2002) argues that Stakeholder Theory is incomplete as it does not specify a corporate purpose of its objective function. As there are multiple constituents for the managers to attend to, it becomes tougher and harder to do a proper trade-off between them. Jensen proposes a more complete theory denominated Enlightened Stakeholder Theory. This is suggested as giving a purpose for which organizations should guide their relations with stakeholders. The objective is simple: ensure long-term firm value maximization by giving all personnel the necessary structure in how they manage and attend all important constituents of the firm.

1.2. Other Theories

The theories that address the principal-agent relationship follow different assumptions regarding both parties' natural behavior. Some authors in the literature assume that the theories are independent from each other, so a counter argument against Agency Theory, others see the remaining theories as complement of the theory of agency. Still, depending on the problem analyzed we may choose one of the theories to explain the behavior of both groups of actors. Table (1) show a summary on the relevant aspects of each theory: aim, assumptions about human beings, problem analyzed and respective authors. The information displayed in table (1) was an adaptation of the document by Cuevas-Rodriguez G. et al. (2012) and presents the relevant theories in the literature.

1.2.1. Stewardship Theory

The Stewardship Theory is prominent in the NPO literature. This theory prepositions assumes that agent looks for the best interest of its principal, so it is motivated to maximize the utility of its principal rather than a self-interest behavior (Donaldson and Davis, 1991).

Sundaramurthy and Lewis (2003) present an interesting distinction between Agency Theory and Stewardship Theory in various contexts. Firms' inside and external relations and their environment are dynamic, so the authors analyses corporate's performance over different frameworks of the mentioned conditions. Organization's identification, level of risk, cooperation or conflict can change the relation between principal and agent, modifying the strategy applied and its successfulness.

Donaldson and Davis (1991) present an empirical analysis over the benefits of CEO duality[3]. The ROE observed by the firms with CEO duality was higher than those with independent role of the CEO from the chairman of the board. This evidence supports Stewardship Theory and not Agency Theory, given that the latter favor the separation of the roles.

Arthurs and Busenitz (2003) studies the relation between Venture Capitalist and Entrepreneur appointing the limitations of both Agency Theory and Stewardship Theory. Goal congruence, development of trust and stock ownership are in the center of analysis. Neither theory could fully explain VC-E relationship.

1.2.2. Resource Dependence Theory

This theory was brought by Pfeffer and Salancik (1978) in their book "The External Control of Organizations: A Resource Dependence Perspective". The theory approach is based on the necessity of the organizations to engage and rely in relations with their surrounding environment. The ability to change itself and the environment is required to fulfill the organizations objectives.

Hillmann et al. (2009) did a review over the book. There are five points on how organizations can reduce environment dependence: through mergers and acquisitions; joint ventures and similar; board of directors; political action; executive succession.

Daily and Dalton (1994) reinforces the value of outside directors in times of environmental pressure. Looming bankruptcy can be mitigated by the presence of outside directors in the board that can assure valuable information and other resources, resources that couldn't be achieved by other means.

1.2.3. Institutional Theory

Institutional Theory proposal says that organizations are industry oriented, ruled by its norms and beliefs.

[3] As presented by the same authors, CEO duality is defined as the incumbency of roles of both CEO and chairman of the board. This way, CEO exerts direction but also command and control in the organization.

Eisenhardt (1988) uses it as framework to explain compensation policies in organizations.

Slatten et al. (2011), in the light of Institutional Theory offer some theoretical insight where NPO should get accreditation, with the purpose of gaining legitimacy and diminish information asymmetry gap from donators.

Table 1. Main theories regarding corporate governance

Theories	Aim	Assumptions about human beings	Problem Analyzed	Authors
Agency Theory	Maximization of organizational efficiency	Individuals are rational beings with selfish opportunist behavior and with concrete preferences toward risk (neutrality to risk [(principal)] or aversion [(agent)]	Relationship between principal and agent as well as mechanisms (internal/external) that allow for control of agent performance	Jensen and Meckling (1976) Fama (1981) Eisenhardt (1989)
Stakeholder Theory	Balancing interest of different groups (stakeholders)	Individual's attitudes are not always selfish and relationships between individuals are interdependent (have repercussions that are themselves influenced by other relationships in turn)	How executive decision making considers the interests of different stakeholders involved in the organization	Dixit (1997) Hill and Jones (1992)
Stewardship Theory	Maximization of shareholder wealth via the maximization of the administrator's utility	Administrator's behavior is altruistic and collaborative (the individual identifies with organizational mission and objectives)	Situations in which executives like administrators are motivated to act in the best interest of their principals	Donaldson and Davis (1991) Arthurs and Busenitz (2003) Sundaramurthy and Lewis (2003)
Resource Dependence Theory	Maximize the resources provided by the board	Individual are heterogeneous and each one can allocate specific resources.	Boards as providers of resources for the survival of the organization	Daily and Dalton (1994) Hillman et al. (2009)
Institutional Theory	Legitimation of the organization in social context	Individual adapts to the system of norms, values and beliefs within institutional environment	Organizational practices	Eisenhardt (1988) Slatten et al. (2011) Wiseman et al. (2012)

Adapted from Cuevas-Rodriguez, G., et al. (2012). "Has Agency Theory Run its Course?" Making the Theory more Flexible to Inform the Management of Reward Systems." *Corporate Governance-an International Review* 20(6): 526-546.

1.3. NPO vs For-profit organizations

Differences between for-profit organizations and NPO are significant (table 2). As observable in this dissertation, NPO can assume various legal forms, depending on the organizational structure desired by the founders. For-profit organizations are generally divided into public or private companies and, furtherly, small, medium or big sized depending on the assets held. NPO by their side, can be associations, foundations, and others.

In terms of ownership, generally these terms are well defined in the context of for-profit organizations. About this matter the topics property rights, organization's stakeholders and shareholders' interests and distribution of earnings on table (2) are usually connected. Normally, the shareholder is a generalized name for the owner of a for-profit firm. Consequently, this position entitles the shareholders as residual claimers for the organization profits, as well, all operations made in the corporation should be in their best interest. NPO position is very much different. There are no owners, so there are not any residual claimers to the organization's profits, and so in the light of the Stakeholder Theory, the organization will act in all relevant stakeholders' best interests (Eller, 2014).

Performance is all about financial indicators in for-profit. Whether if we have a profit or a loss, these will reflect into operational efficiency plus market acceptance. (Malik, 2007, in Eller, 2014). Like mentioned previously, NPO are Stakeholder oriented so their finality is more towards a social profit. Financial efficiency, of course, matters but the expectations of the Stakeholders are the core mission of a NPO, how they are accomplished is usually the important measure of a NPO performance. Structurally for-profit can be two-tier or one tier and NPO one tier. One tier governance model is like that shown in figure 1, inside and outside directors are usually one, being the inside directors responsible for government roles and outside directors responsible of supervision roles (Choi, 2011). The two-tier model is essentially different in the separation of inside board of directors and external board of directors like show in figure 2. Both models are hierarchical top-down, like described in the Agency Theory (Eller, 2014).

Finally, for-profit personnel are by nature remunerated for executing their jobs. NPO have also remunerated jobs, but is usually a mix of paid jobs and volunteering jobs.

Table 2. Features comparison NPO vs for profit (Eller, 2014)

	Corporate Governance in for-profit-organizations	Corporate Governance in non-profit organizations
Legal framework	Corporations listed on the stock exchange	Associations, Foundations, Cooperatives
Property rights	Private owner, corporate owners, shareholder	Founder but no legal personal owner
On whose interest will the organization be governed?	Private owner, corporate owners, shareholder	Multiple stakeholder
Distribution of earnings	Annual distribution of earnings to shareholders	Non-distribution constraint
Performance	Financial bottom line	Several bottom lines
Structure of governing bodies	Two-tier model Separation of executive board and supervisory board, Separation of decision-making and control	Voluntary board-"One-tier model" No separation of executive board and supervisory board
Personnel	Paid staff in all hierarchical levels	Especially in associations volunteers in all hierarchical levels and paid staff in larger organizations

Figure 1. One-tier governance model (Choi, 2011)

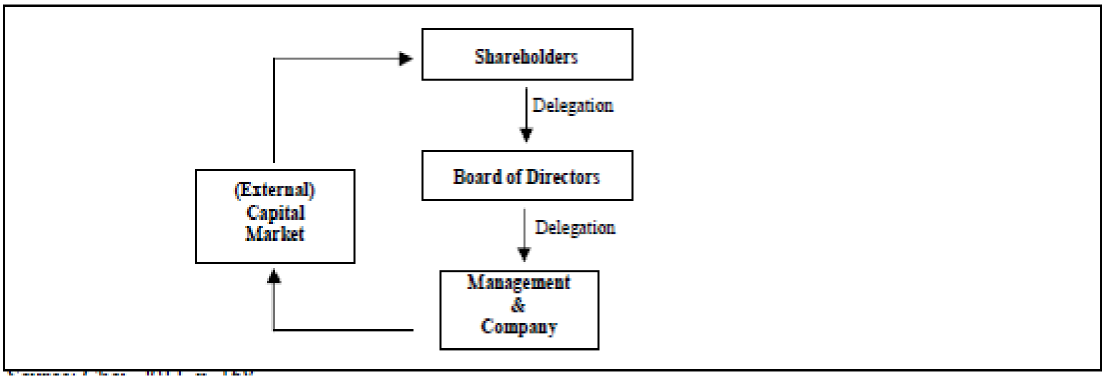
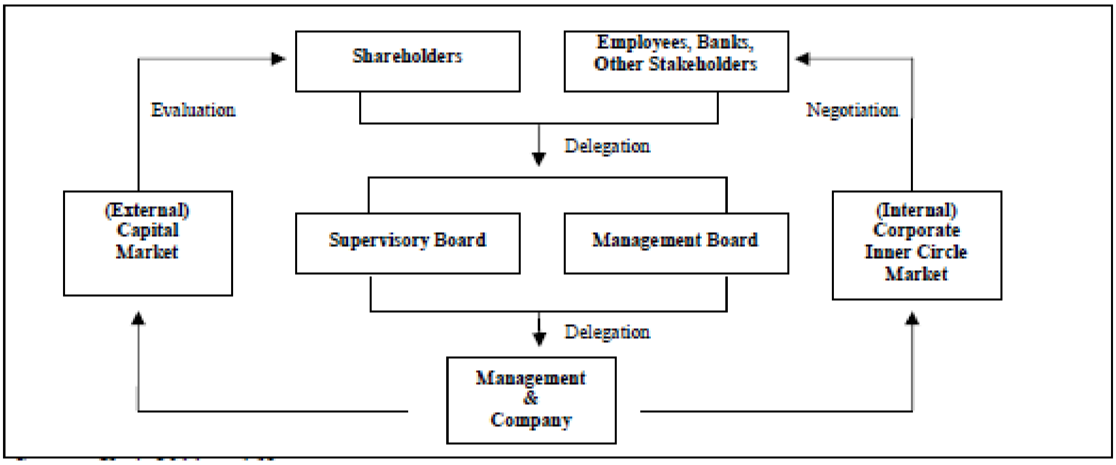


Figure 2. Two-tier governance model (Choi, 2011)



1.4. Reasons for Endowment Holdings

The precautionary savings is a way to internalize the need to smooth expenditure today in order to be safe from future income uncertainty. Fisman and Hubbard (2004) adjust this problem to the the fact that donors may want that their funds should be spent away rather that being in form of savings (in this case in form of endowment). They suggest a simple model to describe the NPO entrepreneur problem:

$$\max_{Q1Q2} U(Q_1) + 1/2[U(Q_{2L)} + U(Q_{2H)})] \quad \textbf{(1.1)}$$

Where,

$$Q_{2i} = D_1 - Q_1 + D_{2i} = F + D_{2i}, i = L, H \quad \textbf{(1.2)}$$

$$Q_1 \leq D_1 \quad \textbf{(1.3)}$$

$$U'(Q_1) = 1/2[U'(Q_{2L}) + U'(Q_{2H})] + \mu_1 \quad \textbf{(1.4)}$$

Equation (1.1) represents the maximization of utility by the manager, where U'>0 and U''<0.

The manager of the NPO derives utility from producing the charitable good. The problem is presented, like shown in Equation (1.2), as the need of the manager to obtain financing in the order to produce the output of the good in period 1 (Q_1) and in period 2 (Q_2). With attention for the non-distribution constraint, the first donation from a "pionneer" donor is represented as D_1. Considering this, manager have two options: finance the current production of Q_1 or retain partially it to finance future production (Q_2), as F represents the total savings from period 1. Mention that the entrepreuner cannot produce more than the total donation received in period 1 (Equation 1.3). Well, in period 2, donations can be higher D_{2H} or lower D_{2L} with same probability.The manager will have more incentive to save and to carry out forward endowment, as the spread between D_{2L} and D_{2H} (Q_{2L} and Q_{2H}) increases, and so to produce less in period 1 in order to finance partially the output of period 2. Equation (1.4) is the optimal utility choice that the manager faces for both periods, being μ_1 the Lagrange multiplier for equation (1.3).

Over the use of producing the charitable good, the manager can use the savings for other purposes that the output of the good. This diversion will be represented by $(1 - s)F$. $\emptyset$

represents the level of the organization to ensure monitorization over manager's actions so its fully represented by (s-$\emptyset/2s^2$)F. The entrepreneur problem is now:

$$\max_{s} U\,(D_1 - F) + 1/2[U((1-s)F + D_{2L}) + [U((1-s)F + D_{2H})] + (s-\emptyset/2s^2)F \tag{1.5}$$

Where,

$$Q_{2i} = D_1 - Q_1 + D_{2i} = (1-s)F + D_{2i}, i = L, H$$

$$Q_1 \leq D_1$$

S yields

$$-1/2[U'[((1-s)F + D_{2L}) + [U'((1-s)F + D_{2H})] + 1\text{-}\ \varphi s = 0$$

The bigger the level of monitoring (Ø) the lower diversion can the manager do of endowment (s). So, the model understands the possibility of the entrepreneur to divert funds from endowment. Fisman and Hubbard (2004) also includes the figure of the pioneer donor. The pioneer donor knows the possibility of endowment diversion, so it defines the amount of the donation to be spent right away, where the entrepreneur diverts part of the endowment retained. They state that even if the pioneer donor increases the "burn rate" of donations it decreases the possibility of smoothing future production.

The equations presented next represent the extensions of the full model as presented in Fisman and Hubbard (2004).

$$\max_{D_1 F} V\,(D_1 - F) + 1/2[V\big((1-s)F + D_{2L}\big) + V\big((1-s)F + D_{2H}\big) + W - D_1$$

$$V'(D_1 - F) = 1$$

$$-V'(D_1 - F) + 1/2(1-s)[V'\big((1-s)F + D_{2L}\big) + V'\big((1-s)F + D_{2H}\big) = 0$$

Although this dissertation does not focus on monitorization of the donors on their donations, the model gives an interesting insight in how agency problems can arise when managers do not use efficiently the funds received and divert them for other purposes other than producing the NPO output. Full model explanation can be seen in the cited document (Fisman and Hubbard, 2004).

1.5. Theoretical Framework of the Research Question

Generally for-profit organizations have comparably to NPO a few more variables or situations that allows a further quantitative studying in the context of Agency Theory. Publicly traded companies are usually in the center of acquisitions and, in these cases, managers are over big scrutiny (Schleifer and Vishny, 1997). Monitoring and securities analysts can also influence agency costs in organizations (Chung and Jo, 1996). Consequently, variables like market value or dividend payout are usually used to assess possible agency costs in the for-profit world.

Problems of agency can also be studied in function of the countries' law and governance evaluation. Dittmar et al. (2003) conclude that organizations with low shareholders protection tend to hold more cash than those organizations in countries with higher shareholders protection. Dittmar and Smith (2005) and Pinkowitz (2015) show evidence that in presence of poor governance firms cash is valued lower that in good governance firms. Also, operational efficiency in cash spending is higher for good performance firms that for poorer.

In Jensen (1986) it is suggested debt as a control mechanism to promote management efficiency. Debtholders are also residual claimants on the organization assets given that they have to be repaid by the principal amount plus interests on debt (Jensen and Meckling, 1976). Although in slightly different conditions, debt is also an occurring situation in NPO, so it is present in this study.

This dissertation began with the allusion to the non-distribution constraint. Well, distribution of profit by shareholders is a common possibility in the for-profit area. Whether managers decide to do it or not constitutes their own choice, depending if their interests are or are not aligned with shareholders' interests. The case of NPO is different. There are not any residual claimants on the organizations profits (Hannsman, 2010). From the point of view of donors, they have no claims on the organization net free cash flow. Still there is residual risk as the organization can expropriate part of the funds donated by them. In this case, NPO have similar structure comparing to for-profit corporations when it comes to monitor or ratify decisions (Jensen and Fama, 1983). NPO can either retain it or reinvest in the organization.

Retention can occur in form of endowment or cash holdings, so these are target variables when it comes to uncover agency problems in common literature. When it comes to for-profit literature, it is related normally in cases of payout for shareholders or reinvestment on the organization. Jensen (1986) refers that conflicts of interest between shareholders and managers can occur due to dividend payout policies, when the corporation generate substantial free cash flow.

In the NPO case, the motivation can be more relevant in cases of precautionary savings (Leland,1968). In Hansmann (1990) study, universities are more likely to hold cash to spend it in the future then to use it right now.

As argument in this dissertation, liquid assets are likely to be hold due to agency factors or by precautionary motives. There two theories that address motivation for cash holdings.

The Pecking Order Theory (Myers and Majluf, 1984) suggests a hierarchy of financing for organizations. Internal financing (e.g. cash) followed by debt issues and finally equity. The authors arrange this classification as bigger the cost of information for external funders increases. Although NPO cannot issue equity, they can still can get debt so the theory still adjusts.

On the other hand, the trade-off model states that the optimal level of cash holdings should be so that the marginal benefits of holding it, equals its marginal costs (Frank and Goyal, 2007).

Opler et al. (1999) states that there are two primary reasons for liquid assets holding. Financing current operations, when there are no other sources available or there too expensive. Second, the necessity of selling assets for financing purposes is nonexistent.

1.6. Critical Review of the main literature

The first four studies in table (3) are linked to the research question, so they are presented in the next chapter. All quantitative studies used sample of USA located NPO[4], whose data can be obtained in the IRS 990 form that must be filed by third sector organizations in the USA. Study on CEO compensation by Gaver and Im (2013) concludes that higher excess compensation is associated with NPO that rely more in investment income. Also, higher compensation is related with NPO with proportionally higher income from grants and public donations. Hewitt and Brown (2000) on their research on environmental NPO say that managers do not get positive utility only on providing services.

In the qualitative side, the study of Viader and Espina (2013) could find in its majority, of organizations in Puerto Rico, manifestations of Agency Theory and then followed by Stewardship and Resource Dependency Theory in lower proportions. The other empirical ones concluded a mix of the quoted theories to perceive better how the managers behave in NPO. Mention to Van Puyvelde researches on this theme, perceiving also signals of agency problems but also evidence of Stewardship and Stakeholder Theory.

Table 3. Empirical studies made over the subject

	Theories	Variables in Study	Authors
Quantitative			
	Agency Theory	**Endowment**	**Fisman and Hubbard (2003)** **Fisman and Hubbard (2004)** **Core et al. (2006)**
	Agency Theory	**Cash Holdings**	**Ramirez (2010)**
Qualitative	**Stewardship Theory** **Agency Theory**	**Cultural and Bonus Schemes** **Quality and Reputation Work** **Pressure and Organization**	**Kluvers and Tippett (2011)** **Puyvelde et al. (2016)** **Caers et al. (2007)** **Slyke et al. (2006)**
	Agency Theory	**Board Structure**	**Viader and Espina (2014)**
	Stakeholder Theory	**Business Ethics**	**Bouckaert and Vandenhove (1998)**

[4] Given that the studies used USA located NPO, the information is storage in the National Center of Charitable Statistics (NCCS) website.

Most of the authors visualize the remaining theories as limiting and not opposing to the Agency Theory, given that it makes strict assumptions about the behavior of the parties involved and it was originally designed in the context of for-profit organizations. It is only plausible then to think that managers can behave and act in a different manner when the maximum objective of the organization is social value and not an economic one. Still, it does not mean that a NPO do not present the assumptions of Agency Theory.

The studies of Agency Theory on NPO have introduced important extensions to the theory in a way that gave new perspectives for developing it further. The fact is, being the base of the studies the NPO, it showed managerial characteristics different from we are regularly presented. Proof of Stewardship Theory and considering an important role on stakeholders, with exception for shareholders and even debtholders, these articles provided interesting insights for different actions on the relation between principals and agents.

Table 4. Methodological aspects of similar studies

Data Collection	Authors	Country of Study	Sample Size	Sector	Variable of Study	Key Informants	Unit of Analysis	Statistical Analysis
Database	Core et al. (2006)	United States	41752	Multiple	Endowment	Board	Organization/ CEO	Regression
Database	Fisman and Hubbard (2003)	United States	4546	Multiple	Endowment	Board	Organization/ CEO	Regression
Database	Fisman and Hubbard (2004)	United States	4787	Multiple	Endowment	Board	Organization/ CEO	Regression
Database	Ramirez (2010)	United States	97779	Multiple	Cash Holdings	Board	Organization/ CEO	Regression

This dissertation's methodology was inspired in the first and forth study presented in the table (4). Both uses benchmark regression to define the NPO with excess cash or endowment relatively to the whole sample. The difference between cash holdings and endowment is on the liquidity of the assets analyzed. Ramirez (2010) argues that independently of how public securities are, NPO reported net losses in revenue by the time they sold them.[5] Also, he shows that cash and endowment are distributed the same

[5] The evolution of cash and endowment for the NPO used in the sample (2013-2015) can be viewed in the table (4) and (5) in the Appendices.

way when observing NPO industry by industry. However, endowment is the most used variable for asset analysis and to explain precautionary savings in NPO operations. Nevertheless, the independent variables to explain the behavior of either cash or endowment are pretty much the same.

Core et al. (2006)[6] found evidence of agency problems when looking for excess endowment regarding board compensation. In the study, excess endowment (divided into persistent and transitory) is used to test three main hypothesis: growth opportunities, where it was not found any relation between persistent excess endowment and investment or program expenditures; monitoring, concluding that program expenditures are lower for NPO with excess endowment; finally, agency problems where, like was told initially, there is evidence, more precisely in the positive relation between management/officer compensation and excess endowment.

Ramirez (2010)[7] instead uses excess cash and although he does not exclude agency problems, he does not consider them a major issue. The Precautionary Savings Theory is supported by the results on cash holdings when testing for control variables. Higher revenue concentration causes to lower cash holdings. Higher officer compensation tends to represent lower cash holdings and higher board numbers tends to reflect in higher cash holdings. In the case of excess cash holdings, officer compensation is negatively correlated. NPO with higher cash holdings tend to invest more in their assets and donors seem to have preference for NPO that retain more cash.

Fisman and Hubbard (2003) on studying endowment intensity, have data that support the precautionary savings on endowment for NPO. Donors are willingly to provide more donations to NPO located in states with better oversight[8].

Fisman and Hubbard (2004) in their sensitivity study conclude that poor governance states compared with strong governance states: managerial compensation is more highly correlated with inflows of donations; allocate a smaller percentage of donations in the endowment for future expenditures.

[6] The explanatory power of the model for the benchmark regression is of 26.61%.
[7] The explanatory power of the model for the benchmark regression is of 23.16%.
[8] "Measured by the numbers of powers accorded to the state attorney general in monitoring and punishing nonprofits."

1.7. Hypotheses Formulation

NPO with excess endowment face limited options in how they can use it. Core et al. (2006) state those options in how managers can disgorge it. So, managers can:

- Still retaining the excess endowment;
- Do investment in fixed assets;
- Increase program expenditures;
- Use to their private benefit, in form of compensation or perquisites.

So, one of the hypotheses follows the fourth point logic that is easier for managers to consume assets for personal interests from endowment funds rather streams of revenue (Core et al.,2006) and (Fisman and Hubbard, 2002).

H1: Compensation is unrelated to NPO excess endowment, ceteris paribus.

The other hypotheses, follows Ramirez (2010) regarding excess cash holdings relative to investment in assets and grants. If donors care about excess endowment holdings, they would reduce the amount of donations made. Regarding investment in assets, good management actions would use the endowment retained towards the organization and not for personal purposes.

H2: Grants receives are unrelated to NPO excess endowment, ceteris paribus.

H3: Investment in fixed assets (PPE) is unrelated to NPO excess endowment, ceteris paribus.

Chapter 2. Empirical Analysis

For this chapter, data used in sample and respective econometric model are presented. Each main financial indicator is explained, and the results got from the application of the regression are shown.

2.1 Data

Data gathered to compute the sample was taken from public reports of the Portuguese NPO available in their websites. Initially, the sample consisted of 49 NPO (with recognizable legal form)[9] for the period of 2013-2015. From those remained 23 NPO (69 observations) for the period considered. Deleted observations consisted from those who did not disclose information for the 5 years[10] (namely financial reports), unclarity regarding tax exempt status or not enough information to compute specific variables. In Portugal, there are various types of legal form that the NPO can assume. The sample consists only of Associations and Foundations. In the table 4, it is presented the Descriptive Statistics.

2.2 Methodology

The equation (2.1) represents the model for the benchmark regression, where i represents the NPO observed and the t is the year.

$$\mathrm{E}_{\mathrm{it}} = \mathrm{a}_{\mathrm{it}} + \beta_1 * \mathrm{StdRev}_{\mathrm{it}} + \beta_2 * \mathrm{Labor}_{\mathrm{it}} + \beta_3 * \mathrm{Nincome}_{\mathrm{it}} + \beta_4 * \mathrm{Debt}_{\mathrm{it}} + \beta_5 * Expenses_{it} + \beta_6 * \mathrm{RevConc}_{\mathrm{it}} + \beta_7 * \mathrm{Comp}_{\mathrm{it}} + \beta_8 * \mathrm{Board}_{\mathrm{it}} + \mathrm{e}_{\mathrm{it}} \quad \textbf{(2.1)}$$

- E is total endowment, being constituted by cash-non interest bearing, savings and temporary cash investment and investment securities;
- StdRev represents the standard deviation of total revenue;
- Labor is all expenses related with personnel costs;

[9] Reference for a list of ONG gathered by Fundação Calouste Gulbenkian. For the sample considered, it was also given priority for NPO linked to A3S.
[10] For the computation of the standard deviation of revenue, it was considered a period of 3 years (2011-2015). The rest of the variables only needed information for the period 2013-2015.

- Nincome is net income;
- Debt represents the total amount of debt of the NPO;
- RevConc is the Herfhindal Index for revenue concentration and is calculated as presented next,

$$\boldsymbol{H_{it} = \Sigma_{i=1}^{N} s_{it}^{2}} \quad \textbf{(2.2)}$$

  - where s stands for each sub-indicator of revenue (grants, sales, …);
- Comp is board remuneration and is a binary variable that assumes value “1” if the NPO remunerates its board and “0” if otherwise;
- Board is total members of the board of directors.

The elaboration of the variables was based on the financial sheets of each NPO.

The endowment is then formed by cash and bank deposits plus financial investments and other similar. This is the dependent variable in our model.

StdvRev is a proxy for measuring uncertainty in revenue. Coefficient of variation of revenue could also be used (Core et al. 2006). It is expected that with an increase in uncertainty of income, the need for precautionary savings is higher. A positive coefficient is expected between endowment and this variable.

Labor represents all personnel costs. Fisman and Hubbard (2003) uses this variable as measure of labor intensity and the need to use other variables to suppress possible financial shocks other than endowment. It is expected a negative coefficient.

Net Income is all gains discounted of all expenses. This represents an important measure on the direction it takes regarding the non-distribution constraint, if we are in the presence of surpluses. It can be considered the following main hypotheses in here: in case of entrenchment, managers will likely hold the surpluses to avoid bank oversight and to derive private benefits (Ramirez, 2010); in Harford et al. (2008) managers can spend it quickly in order to avoid monitoring costs of accumulating it.

Debt if the NPO incur in obtained financing. Debt can act as management constraint simply because managers should have financial discipline, so the endowment is bounded to the fact the NPO has or has not any debt. Fisman and Hubbard (2003) looks for the debt as an alternative measure of financing other than endowment. Following Core et al. (2006) prediction, NPO with debt financing are likely to hold less endowment that those who do not.

Expenses is an indicator that act as a proxy to measure organization's dimension. In the literature, it is expected that bigger the organization's dimension, the less will be the need to constitute endowment.

Revenue Concentration is a weight measure for revenue diversification. Following Ramirez (2010) reasoning, the coefficient signal is empirically unknown. He argues that a higher level of income diversification could devalue the importance of sources of revenue like donations or grants. By consequence, less monitoring may occur which may lead to more savings. Nonetheless, income diversification may also reduce the need of cash holding as a hedging tool (given that is costly to hold), so the signal can be negative as stated in the same paper.

Managers with less monitoring are more likely to expropriate from endowment to meet their personal interests than from simple revenue streams (Fisman and Hubbard, 2003, in Core et al.,2006). It is expected a positive signal.

Miller (2002) says that larger boards will likely force managers to lower their endowment holdings. Organizational efficiency is empirically observed as positive correlated with the presence of major donors in board (Callen et al., 2003 in Ramirez, 2010). The predicted sign for the quoted literature is positive. Nonetheless, it can assume a negative sign if the board do not enforce proper monitoring.

After the benchmark regression, it will be used its residuals as explained variables and explanatory variables. The regressions are presented next:

$$\boldsymbol{Ex\ End_{it} = \alpha_{it} + \beta_1 * Lag_{it} + \beta_2 * RevConc_{it} + \beta_3 * Debt_{it} + \beta_4 * Comp_{it} + \beta_5 * PPE_{it} + \beta_6 Board_{it} + e_{it}} \tag{2.3}$$

$$\boldsymbol{Grants_{it} = \alpha_{it} + \beta_1 * Lag_{it} + \beta_2 * RevConc_{it} + \beta_3 * Debt_{it} + \beta_4 * Comp_{it} + \beta_5 * PPE_{it} + \beta_6 Board_{it} + e_{it}} \tag{2.4}$$

Where:

- Ex End is the excess endowment obtained from the residuals of regression (2.1);
- Lag is the lagged variable for excess endowment[11];
- Grants received in equation (2.4), represents all donations and similar obtained by NPO;
- PPE is the variations on the value of fixed tangible assets from the year t-1 to year t.

The remaining variables were already presented in regression (2.1).

[11] As said in Ramirez (2010), donators can only make their decisions with information of the previous year and not the current.

2.3 Descriptive Statistics

The descriptive statistics over the sample were made the perspective of their legal form[12], structural organization that a NPO may assume in Portugal following country's law.

The data considered is about 115 total observations, 40 is data on Associations and the remaining 75 on Foundations. Foundations is the type of NPO with higher values in the first three indicators. Being said that, this type has a higher financial dimension when compared to Associations. Regarding PPE, both types have similar pattern, since both sub-samples have 0 as median. This means that they are NPO with none fixed tangible assets. Also, there are observations whose NPO divested in their assets and others who invested on their assets.

The prominence of NPO who remunerate their boards is low when compared to the whole sample (3 out of 23). Also, only Foundations have their boards remunerated.

NPO with acquired debt in any year of the 5-year period is higher but still low (6 out of 23). From those 6, 2 are Associations and 4 are Foundations.

In tables 2 and 3 of Appendices, it is shown the correlation matrix for the variables used in the regression. This allows to check for any possibility of multicollinearity between explanatory variables. Any value above 0.8 may induce the possibility of multicollinearity as the variables would be highly correlated. As observed, with exception for the correlation between the variables "total expenses" and "labor costs", no other variable surpasses the reference value.

2.4 Interpretation of Results

The results for the benchmark endowment regression are presented in table 5. The period in analysis is from 2013 to 2015. This will not only allow to obtain the residuals for the

[12] Information regarding NPO legal form is described in appendices in table 7

second regression but also to perceive what independent variables affect the behavior of endowment retention in Portuguese NPO.

Following the Precautionary Savings Theory, the standard deviation of revenue has the predicted sign. Organizations with more income uncertainty, will likely retain more endowment in order to face cash inflow shortage in the future. The sign is then positive. Labor has a negative sign given that an increase in personnel costs is followed by an increase in endowment. The premise for the non-distribution constraint is that NPO do not distribute money by shareholders (they do not have them) so they can either retain it in form of endowment or reinvest in the organization. In case of surpluses it is supposed that the endowment increases. Net Income has then a positive sign. Leveraged NPO hold more endowment that those who have not any kind of debt. This is consistent with risk aversion and by consequence managers will likely retain more endowment in order to repay the debt. Expenses is a proxy for organizations size. As bigger the organizations it is likelier that will have lesser need to retain endowment. The sign is negative, and it is correspondent what was predicted. Revenue Concentration shows that NPO have lesser need to hold for endowment when the sources of revenue increases. This is consistent with the hypothesis that higher different streams of revenue may induce lower levels of monitoring and by consequence lower endowment. Compensation sign is positive which may show potential signs of agency costs. NPO who remunerate their boards and maintain higher levels of endowment can reflect inefficient management. It is a possibility that the higher the board numbers, managers will be more interventive and maintain lower levels of endowment. The sign did not result in the predicted way. It may be the case that these boards are risk averse.

The Durbin Watson statistic is a reference value for measuring regression autocorrelation. A value of 2 means that there is not any sign of autocorrelation. Values closer to 4 show that can exist the possibility of negative autocorrelation and closer to 0 shows the possibility of positive autocorrelation. The values shown in table 5 may indicate the possibility of positive autocorrelation. The f test shows that the regression is globally significant.

Table 5. Benchmark regression of total endowment. For the regression of this model it was used a LS estimation with White robust errors. Numbers in parentheses are the t-values for the estimates. The *, ** and *** stands respectively for 10%, 5% and 1% significance level. The dependent variable is Total Endowment divided by total expenses. Endowment is constituted by cash, savings and temporary cash investment and investment securities. The variable Stdev Revenue is the standard deviation of revenue and it was calculated for the 3 years prior to each year in the period considered of total revenue. Labor represents all costs with labor and its calculated by dividing personnel costs by total expenses. Net Income is the division between net income and total expenses. Debt represents obtained funding and its calculated by dividing by total expenses. The variable Expenses is natural logarithm of total expenses. Revenue Concentration is the Herfindhal Index of total revenue. Compensation is a dummy variable that assumes value ”1” if the NPO remunerates its administration board and “0” if otherwise. Board represents the number of elements that constitutes the administration board.

Variable		1	2	3	4
Intercept		0.437 (0.466)	2.439** (2.587)	0.332 (0.354)	2.833*** (3.936)
Stdev Revenue		6.08E-08* (1.851)	6.43E-08** (2.003)	6.84E-08** (2.028)	7.65E-08** (2.366)
Labor		0.505*** (8.48)	-0.18*** (-3.563)	-0.12*** (-2.563)	-1.23*** (-6.225)
Net Income		1.788*** (5.391)	1.766** (7.35)	1.629*** (4.578)	1.544*** (4.918)
Debt		1.249*** (4.127)	1.286*** (4.473)	1.309*** (4.137)	1.383*** (4.516)
Expenses		0.018 (0.274)	-0.032 (-0.522)	-0.012 (-0.183)	-0.090* (1.74)
Revenue Concentration			-1.688*** (-12.539)		-2.071*** (12.52)
Compensation			0.418*** (5.351)		0.635*** (5.678)
Board				0.116*** (7.907)	0.159*** (8.145)
R2		0.49	0.53	0.52	0.59
Adjusted R2		0.45	0.48	0.48	0.53
N		69	69	69	69
DW		0.662	0.708	0.696	0.803
F		12.285***	10.02***	11.351***	10.651***

Using the benchmark regression model, it follows the analysis of excess endowment and grants as dependent variables. Residuals of the previous regression will allow to understand if NPO who maintain high levels of endowment result of agency factors or not. Also, the analysis of the dependent variable grants will show what are the main factors that influence donors at the time they make their donations.

Results of the regression are presented in table 6. Excess Endowment dependent variable model is not explained by observed variable. Lagged variable is statistically significant and positive which means that excess endowment is persistent over time. Variations in investment of fixed tangible assets are statistically significant, what shows that managers reinvest the endowment onto the organization, having the opportunities to grow. This can prove that managers are efficient and do not show patterns of agency problems. The null hypothesis for H3 can be then rejected. However, compensation variable is not statistically significant which means that cannot explain the behavior of excess endowment. The null hypothesis for H1 cannot be rejected.

Grants receives are explained by the model. Lag signal is positive. Although the variable is significant, it shows that donators increase donations when endowment increases. If agency problems existed, the signal would be negative instead of positive, given that donators would reduce the amount of donations attributed in situations of endowment increase, which it is not the case. The null hypothesis for H2 can be rejected and agency problems excluded.

The results obtained are not distant from the results that Ramirez (2010) met on its research. Coincident variables on both model were statistically significant for grants behavior with an exception for compensation (on this regression was significant, on Ramirez (2010) it was not) and excess endowment lagged variable.

The Durbin Watson statistic for excess endowment is 2.967 which show signs of negative autocorrelation. The regression is globally significant.

The Durbin-Watson statistic for grants is 1.2967 which show signs of positive autocorrelation. The regression is globally significant.

Table 6.. Regression for excess endowment and grants. For the regression of this model it was used a LS estimation with White robust errors. Numbers in parentheses are the t-values for the estimates. The *,** and *** stands respectively for 10%, 5% and 1% significance level. The dependent variable for the first column is the residuals of the benchmark regression, represented as the excess endowment of NPO. The dependent variable in the second column is total grants, calculated as ratio of grants to total expenses. Endowment is constituted by cash, savings and temporary cash investment and investment securities. Lag is the lagged value of excess endowment. Revenue Concentration is the Herfindhal Index of total revenue. Access to Debt is a dummy variable that assumes value "1" if the NPO had any kind of Debt, "0" if otherwise. Compensation is a dummy variable that assumes value "1" if the NPO remunerates its administration board and "0" if otherwise. PPE represents the investment in fixed assets, and its values are the variation in fixed assets on NPO from the year t-1 to year t. Board represents the number of elements that constitutes the administration board.

Variable		Excess endowment	Grants
Intercept		-0.012 (-0.051)	-0.201 (-1.345)
Lag		0.632*** (3.096)	0.045*** (17.771)
Revenue Concentration		-0.32 (-13.29)	-0.995*** (8.781)
Access to Debt		-0.231* (-1.755)	-0.066*** (-3.370)
Compensation		-0.024 (-0.108)	0.348** (2.321)
PPE		-5.68E-08*** (-4.957)	-1.60E-08*** (6.935)
Board		0.032 (0.819)	0.037*** (2.898)
R2		0.50	0.46
Adjusted R2		0.42	0.37
N		46	46
DW		2.967	1.297
F		6.51***	5.494***

Conclusion

The objective of this dissertation was to check for any preposition of Agency Theory and/or Stakeholder Theory in Portuguese NPO. Influenced by the curricular internship over the second of my master's in A3S, I gain curiosity on understanding more the differences between this sector and the for-profit sector. The literature on this matter is scarce, so it reinforced my expectations on conducting this type of study.

Understandably, the structure between them are different but not entirely different from each other. Board of directors exists in NPO which assure the function of monitoring over the manager actions. Principal as stated in the for-profit organizations may not exist but put under the correct framework allows to perceive principal-agent's relationships onto third sector organizations. Stakeholder Theory played an important role given that assured an appropriate analysis between donators and NPO. Agent is commonly the manager despite the type of organizations we are analyzing. So, these are some way or another assured. Manager's self-interest is what it matters to be analyzed.

First, we run a benchmark regression to observe which financial indicators influenced the behavior of endowment. Endowment is influenced in its majority by variables as theoretically defined in common literature. More uncertainty in revenue will mean higher endowment for NPO. Increases in labor expenses will make endowment lower. More retention of endowment will be consequence of higher net income. Indebted NPO will have more reasons to retain endowment. Organizations with relatively more expenses have comparably lower endowment. Different revenue streams will cause less monitoring and by consequence lesser endowment. NPO with remunerated boards, will have more reasons to retain endowment. Finally, larger boards have a positive sign with endowment.

Secondly, another regression using residuals of the first regression as a dependent variable and also as a dependent lagged variable (excess endowment). Grants is also used as a dependent variable.

The variable compensation is not able to explain excess endowment. Consequently, we cannot reject the null hypothesis for H1. For this variable, we can forgo the possibility of agency costs given that board remuneration maybe considered to be used in manager's self-interest.

Grants receives are explained by the lagged variable of excess endowment but has a positive signal. At the time of making their donations, donors give attention if the NPO are retaining or not excess endowment, but they do not reduce the amount donated if endowment increases. We can reject the null hypothesis for H2 and the possibility of agency problems.

The variable PPE is statistically significant in the model of excess endowment which means that we can reject the null hypothesis for H3.

The results on this dissertation do exclude agency factors for the behavior of managers in NPO. Also, it brings empirical evidence on the behavior of endowment holdings on NPO and some argument to search for other theories.

Limitations

On conducting this research, I search for the financial statements as obliged in the Portuguese accountability standards. However, when comparing to the USA studies I found some limitations:

- Lack of the financial indicator Program Expenses, one of the common indicators over NPO literature to assess these topics;
- Reduced sample, consequence of undisclosable or incomplete financial reports.

Beyond the referred limitations, comparisons between studies would allowed a better description of the realities between countries.

Future Research

Future studies should allow the use of qualitative studies pairing with quantitative studies. As NPO tend to value their qualitative part, a more complete model should also integrate qualitative variables, to assess for other theories like Stewardship Theory. Comparison between different legal form, in a sensitivity analysis would also be important as they have different revenue sources and different structures in some cases. Finally, quantitative studies in different EU countries would also provide interesting insights.

References

Andrade, A.M. and R.C. Franco (2007). *Economia do conhecimento e organizações sem fins lucrativos* Estoril: Principia Editora

Arthurs, J. D. and L. W. Busenitz (2003). "The boundaries and limitations of agency theory and stewardship theory in the venture capitalist/entrepreneur relationship." *Entrepreneurship-Theory and Practice* 28(2): 145-162.

Bouckaert, L. and J. Vandenhove (1998). "Business ethics and the management of non-profit institutions." *Journal of Business Ethics* 17(9-10): 1073-1081.

Caers, R., et al. (2006). "Principal-agent relationships on the stewardship-agency axis." *Nonprofit Management and Leadership* 17(1): 25-47.

Caers, R., et al. (2009). "A micro-economic perspective on manager selection in nonprofit organizations." *European Journal of Operational Research* 192(1): 173-197.

Chung, K.H. and Hoje, J. (1996). "The impact of security analysts' monitoring and marketing functions on the market value of the firms." *The Journal of Financial Quantitative Analysis*

Core, J. et al. (2006). "Agency problems of excess endowment holdings in not-for-profit firms." *Journal of Accounting and Economics"* 41: 307-333

Cuevas-Rodriguez, G., et al. (2012). "Has Agency Theory Run its Course?" Making the Theory more Flexible to Inform the Management of Reward Systems." *Corporate Governance-an International Review* 20(6): 526-546.

Daily, C. M. and D. R. Dalton. (1994) "Bankruptcy and corporate governance: the impact of board composition and structure" *The Academy of Management Journal* 37(6):1603-1617

Dittmar, A. and J. Smith. (2006) "Corporate governance and the value of cash holdings" *Journal of Financial Economics* 83:599-634

Du Bois, C et al. (2009). "Agency conflicts between board and manager: a discrete choice experimente in flemish nonprofit schools" *Nonprofit Management and Leadership"* 20(2) 165-183

Donaldson, L. and J. H. Davis (1991). "Stewardship Theory or Agency Theory: CEO governance and shareholder returns." *Australian Journal of Management* 16(1): 49-64.

Eisenhardt, K. M. (1988). "Agency and Institutional Theory explanations: the case of retail sales compensation." *Academy of Management Journal* 31(3): 488-511.

Frank, M. Z. and V.K. Goyal (2005). "Trade-off and pecking order theories of debt" *Handbook of Empirical Corporate Finance: Empirical Corporate Finance: 135-202*

Eisenhardt, K. M. (1989). "Agency theory - an assessment and review." *Academy of Management Review* 14(1): 57-74.

Eller, H. (2014). "Corporate governance in non-profit organizations in Europe by focusing the governance model" Latvia, University of Latvia

Fisman, R. and R. G. Hubbard (2003). *The governance of not-for-profit organizations, the role of nonprofit endowments* Chicago: National Bureau of Economic Research

Fisman, R. and R. G. Hubbard (2005). "Precautionary savings and the governance of nonprofit organizations." *Journal of Public Economics* 89 :2231-2243

Gaver, J. J. and S. M. Im (2014). "Funding Sources and Excess CEO Compensation in Not-for-Profit Organizations" *American Accounting Association* 28(1): 1-16

Hansmann, H. (2010). "The economics of nonprofit organizations" *Comparative corporate governance of non-profit organizations*: Cambridge University Press

Hewitt, J. A. and D. K. Brown (2000). "Agency costs in environmental not-for-profits" *Public Choice* 103: 163-183

Hill, C. and T. M. Jones (1992). "Stakeholder-Agency Theory." *Journal of Management Studies* 29(2):131-154.

Hilman, A. J. et al. (2009). "Resource dependence theory: a review" *Journal of Management* 35(6) 1404-1427

Jensen, M.C. (1986). "Agency costs of free cash flow, corporate finance and takeovers" *American Economic Review 76(2), 323-329*

Jensen, M. C. (1994). "Self-Interest, Altruism, Incentives & Agency Theory." *Journal of Applied Corporate Finance.*

Jensen, M.C. (2002). "Value maximization, Stakeholder Theory and the corporate objective function" *Business Ethics Quaterly* 12(2): 235-256

Kluvers, R. and J. Tippett. (2011). "An exploration of stewardship theory in not-for-profit organization" *Accounting Forum* 35:275-284

Miller, J. L. (2002). “The board as a monitor of organizational activity: The applicability of agency theory to nonprofit boards” *Nonprofit Management and Leadership 12(4):429-449*

Mitchell, R.K. et al. (1997). “Toward a theory of stakeholder identification and salience: defining the principle of who and what really counts” *Academy of Management Review* 22(4): 853-886

Opler, T. et al. (1999). “The determinants and implications of corporate cash holdings” *Journal of Financial Economics* 52:3-46

Pinkowitz, L. et al. (2006). “Does the contribution of corporate cash holdings and dividends to firm value depend on governance?” *The Journal of Finance* 61(6): 2725-2751

Ramirez, A. (2010). “Nonprofit cash holdings: Determinants and governance” *Public Finance Review* 39(5): 653-681

Slatten, L. A. et al. (2012) “Accreditation and certification in the non-profit sector: organizational and economic implications” *Organization Management Journal* 8:112-127

Van Puyvelde, S. et al. (2012). "The Governance of nonprofit organizations: Integrating Agency Theory With Stakeholder and Stewardship Theories." *Nonprofit and Voluntary Sector Quarterly* 41(3): 431-451.

Van Puyvelde, S. et al. (2016). "Managerial objectives and the governance of public and non-profit organisations." *Public Management Review* 18(2): 221-237.

Van Slyke, D. M. (2007). "Agents or stewards: Using theory to understand the government-nonprofit social service contracting relationship." *Journal of Public Administration Research and Theory* 17(2): 157-187.

Viader, A. M. and M. I. Espina (2014). "Are not-for-profits learning from for-profit-organizations? A look into governance." *Corporate Governance (Bingley)* 14(1): 1-14

Appendices

1. Sample of NPO considered for analysis (distributed by legal form)

Associations	Foundations
Associação A3S	ADFP
ACEP	AMI
Acreditar	Benfica
AETP	Champagnat
Oikos	Champalimaud
Plataforma ONGD	Cidade de Lisboa
Rosto Solidário	D.Luís
Tese	EDP
	Eugénio de Almeida
	Fê e Cooperação
	Manuel dos Santos
	Montepio
	Portuguesa de Cardiologia
	Pão de Açucar
	Serralves

2. Pearson correlation matrix

Correlation t-Statistic	ENDOWMENT_EXP	STDEV_REVENUE	LBR	NINCOME	OBTAINED_DEBT	EXPENSES	REVENUE_CONCENTATION	COMPENSATION	BOARD
ENDOWMENT_EXP	1.000000 -----								
STDEV_REVENUE	0.537263 5.214139	1.000000 -----							
LBR	-0.150326 -1.244611	-0.345192 -3.010567	1.000000 -----						
NINCOME	0.372562 3.286129	0.091209 0.749699	0.031360 0.256818	1.000000 -----					
OBTAINED_DEBT	0.567486 5.641444	0.483251 4.518173	-0.253128 -2.141695	0.161862 1.342599	1.000000 -----				
EXPENSES	0.4217 3.806803	0.2149 1.801113	0.821819 0.025877	0.661646 0.17817	0.321199 0.77512	1.000000 ----			
REVENUE_CONCENTATION	-0.164669 -1.366531	0.043066 0.352837	-0.283788 -2.422505	-0.055271 -0.453107	0.049899 0.408950	-0.043817 -0.359	1.000000 -----		
COMPENSATION	0.010587 0.086665	-0.091040 -0.748299	0.043811 0.358950	0.032260 0.264199	-0.075397 -0.618914	-0.66257 -7.24081	0.200726 1.677148	1.000000 -----	
BOARD	0.039439 0.323072	-0.283239 -2.417408	0.403378 3.608385	0.140573 1.162176	-0.206951 -1.731453	-0.26052 -2.20872	-0.020036 -0.164031	-0.089548 -0.735935	1.000000 -----

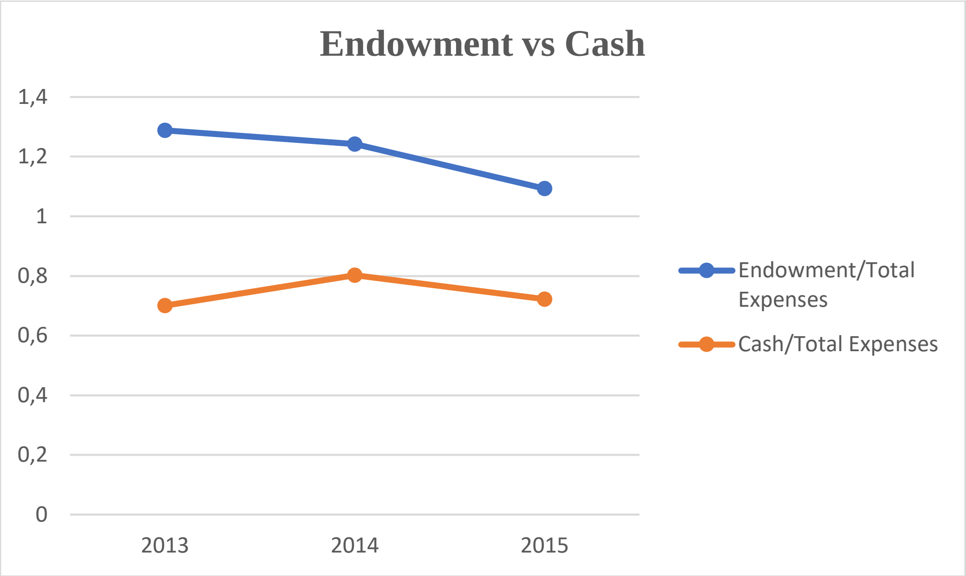
3. Spearman correlation matrix

Correlation t-Statistic	ENDOWMENT_EXP	STDEV_REVENUE	LBR	NINCOME	OBTAINED_DEBT	EXPENSES	REVENUE_CONCENTATION	COMPENSATION	BOARD
ENDOWMENT_EXP	1.000000 -----								
STDEV_REVENUE	0.158677 1.315497	1.000000 -----							
LBR	-0.100332 -0.825422	-0.409770 -3.676995	1.000000 -----						
NINCOME	0.299269 2.567287	0.441871 4.031828	-0.046951 -0.384734	1.000000 -----					
OBTAINED_DEBT	-0.056712 -0.464958	0.534225 5.172839	-0.480888 -4.489410	0.208202 1.742393	1.000000 -----				
EXPENSES	0.216989 1.819482	-0.253087 -2.14132	0.891911 16.14425	0.6617 7.223892	0.3212 2.776245	1.000000 -----			
REVENUE_CONCENTATION	-0.196967 -1.644463	0.003252 0.026617	-0.326976 -2.832084	-0.214541 -1.797963	0.238128 2.006896	0.0428 0.350654	1.000000 -----		
COMPENSATION	0.186222 1.551430	0.170863 1.419451	0.061436 0.503829	-0.094071 -0.773433	-0.008884 -0.072722	-0.0626 -0.51341	0.155505 1.288537	1.000000 -----	
BOARD	0.168139 1.396156	-0.249624 -2.110061	0.395211 3.521638	-0.029515 -0.241693	-0.276909 -2.358841	-0.2605 -2.20854	-0.060530 -0.496371	-0.105143 -0.865429	1.000000 -----

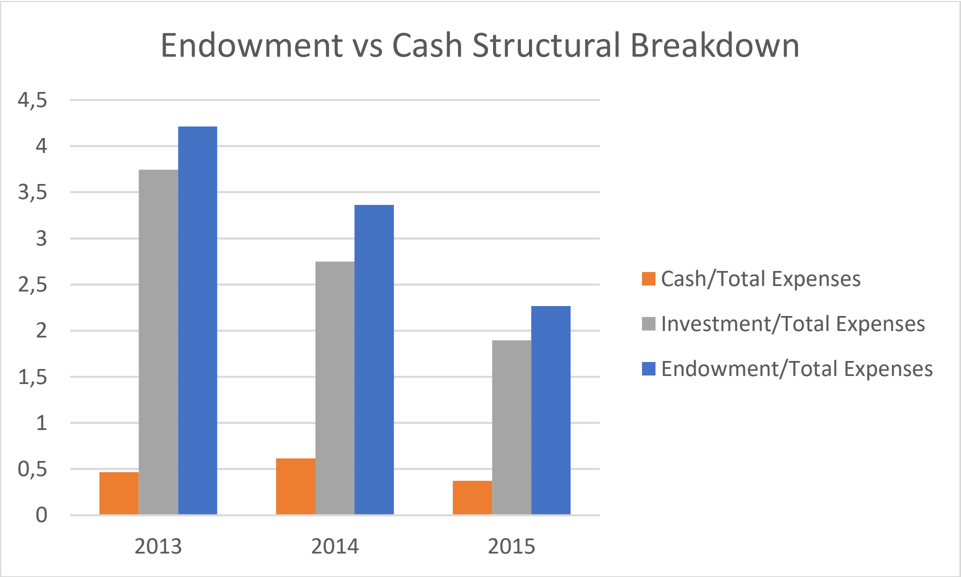
4. Types of NPO in Portugal

Ner	ICNPO Group Designation	Type of Organizations in Portugal
1	Cultural and recreation	Sport, cultural and recreational associations "Casas do Povo" Recreational and social clubs Museums Zoo and aquariums Historical and literary societies Theater and dancing associations Juvenile or students associations
2	Education and research	Religious schools Catholic universities Investigation centers
3	Health	Hospitals and health centers
4	Social services	"Instituições Particulares de Solidariedade Social"-IPSS "Santa Casa da Misericórdia" Social solidarity cooperatives Mutualities Firefighters associations
5	Environment	Non governamental environmental associations Animals protection associations
6	Development and housing	Local development organizations Housing and construction associations Residents associations
7	Law, advocacy and policies	Human-rights associations Political parties Residents associations
8	Philanthropic intermediaries and voluntarism promotion	Grant-giving or donors Volunteers promoters "Bancos alimentares"
9	International	ONGD International organization subsidiaries
10	Religious	Religious institutions Religious associations
11	Business and professional associations, unions	Business associations Professional associations Unions
12	Nec	

5. Evolution of endowment and cash (2013-2015)



6. Cash and endowment structure (2013-2015)



7. Descriptive Statistics

	Total Observations	Total Endowment (thousand €)	Total Revenue (thousand €)	Total Expenses (thousand €)	Labor	Net Income (thousand €)	PPE (€)	Board Compensation	Access to Debt
Legal Form									
Associations	24	119.69	629.86	641.02	219.92	4.92	-	0	2
Foundations	45	1 329.744	2 419.61	2 216.71	949.31	57.47	-	3	4
Full Sample	115								
Median		632.00	1 554.52	1 491.30	421.06	16.81	-	-	-
Standard Deviation		108 001.71	29 784.05	27 604.00	1 812.22	3 152.65	7 525.41	-	-
Mean		27 218.68	9 901.24	8 907.80	1 267.43	993.44	-16480,34	-	-

8. Legal form and legal statuses Portuguese NPO

Legal Form	Legal Status
Associations	IPSS
Cooperatives	ONGD
Foundations	
Houses of Mercy	
Mutualities	